

Page 1

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : ☐									

Work Order ID 164011

Tuesday, July 11, 2017 7:25:45 AM

164011

Page 3

Item ID: D2230-3 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Mounting Lug
Start Date: 7/11/2017 Start Qty: 160.00 ***160*** Cust Item ID:
Required Date: 8/9/2017 Req'd Qty: 160.00 ***160*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC3- Inspect Part Finish	0.00							
170						160			DAS 38 AUG 17 2017
QC	Memo	1.60							
Quality Control									
180	Identify as per dwg & Stock Location: <u>8-521</u>	0.00							
180						160			DAS 9-89 AUG 28 2017
Packaging	Memo	1.60							
Packaging									
190	QC21- Final Inspection - Work Order Release	0.00							
190									17/9/5
QC	Memo	16.00							
Quality Control									

DAS
21
9-89
AUG 28 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

Picklist Print

Tuesday, July 11, 2017 7:25:44 AM

Page 1

Work Order ID: 164011

164011

Parent Item: D2230-3

D2230-3

Parent Item Name: Mounting Lug

Start Date: 7/11/2017

Required Date: 8/9/2017

Start Qty: 160.00

Required Qty: 160.00

Comments: IPP D00.05.18 Added inspection level 8, and removed P/O for powder
coatEC IPP REV :E NEW FOLIO # 10-05-
25 JLM VERIFIED BY:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2230-3P *D2230-3P* Lug		Purchased	No			110	Each	0.0000	1	160			DAS 6 9-80
D2423 *D2423* Lug Extrusion		Manufactured	No			110	f	537.1479	0.0683	11.50316			DAS 13 9-80

AUG 17 2017

SEP 05 2017

Location

Loc Qty

Loc Code

Metec

537.1478737

115229

64

127892

83.2745647

148835

53.873309

160522

336

DQA: _____ Date: _____

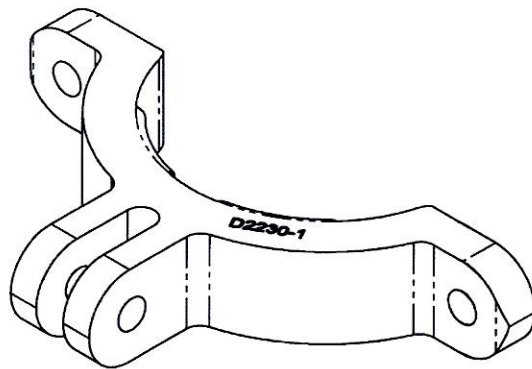


WORK ORDER NON-CONFORMANCE / UPDATE

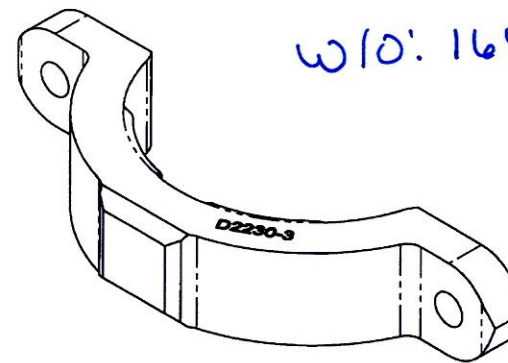
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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JAG 3 38.0																																																																	
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																



D2230-1 MOUNTING LUG



D2230-3 MOUNTING LUG

DAS
13
9-89

JUL 11 2017

W/O: 164011

RELEASED
07/26/2017

DESIGN	REDRAWN IN SOLIDWORKS TO CURRENT DESIGN STANDARDS. REFER TO SECTION A-A & B-B FILLET ADDED TO PREVENT CHAFING OF RUBBER CUSHION ON INSTALLATION.	AJS	09.01.16
F	REDESIGN; R1.200 WAS 1.100	CP	99.12.13
E	RE-DESIGN	BW	95.01.04
D	RE-DESIGN	BW	95.01.04
C	RE-DESIGN	BW	94.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	BW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D2230 TITLE MOUNTING LUG COPYRIGHT © 1994 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	AJS		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.		SCALE NTS	
DATE	09.01.16	REV. G SHEET 1 OF 3	

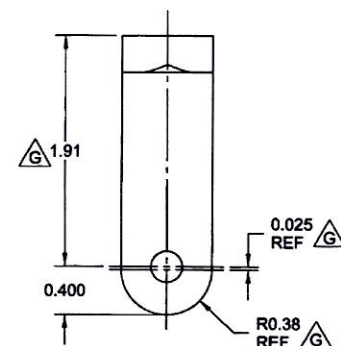
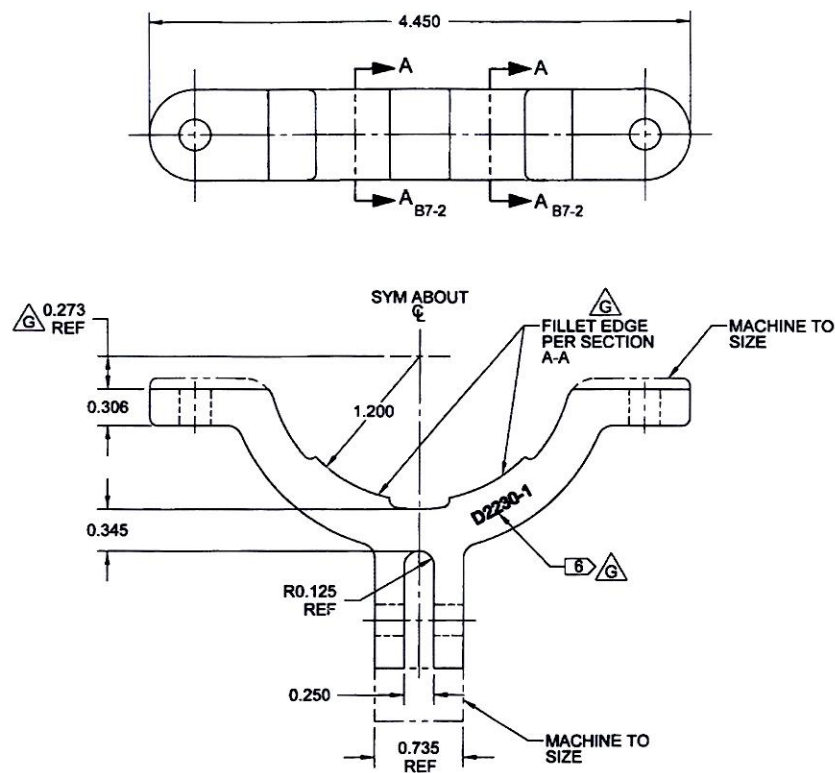


NOTES:

- 1) MATERIAL: MAKE FROM D2423 EXTRUSION
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE PART NUMBER TO A DEPTH OF 0.010 ± 0.005 IN THIS LOCATION, WITH TOOL TIP RADIUS OF 0.015 ± 0.005.
- 7) WEIGHT: -1: 0.16 lbs
-3: 0.14 lbs

SECTION A-A D4-2
SCALE 2X

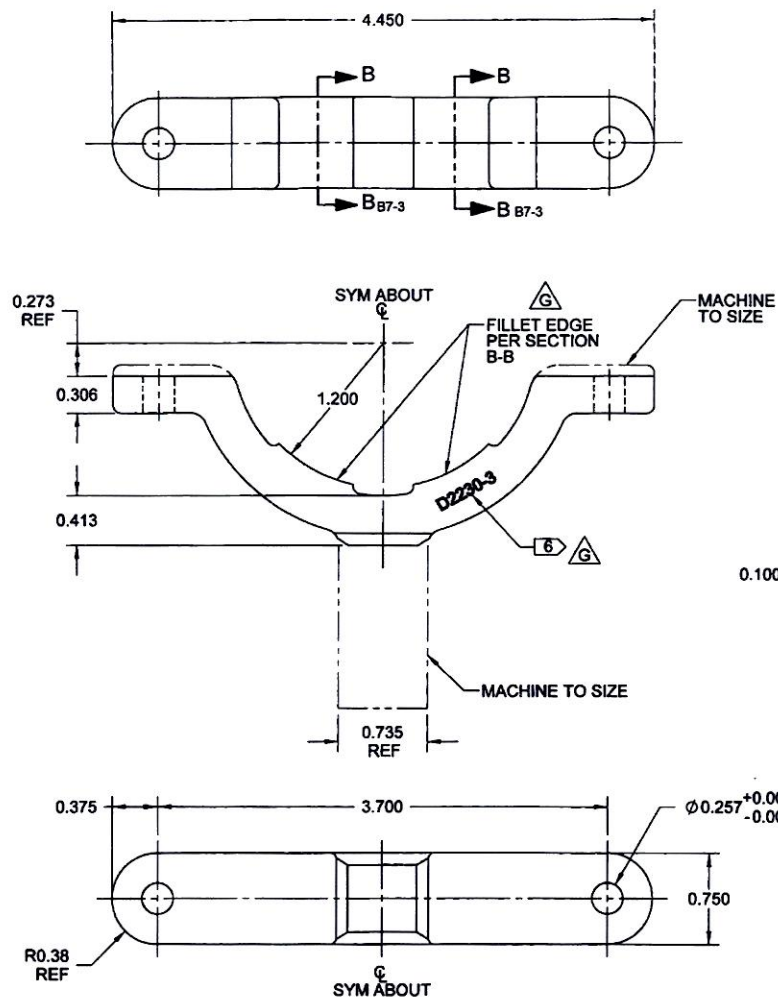
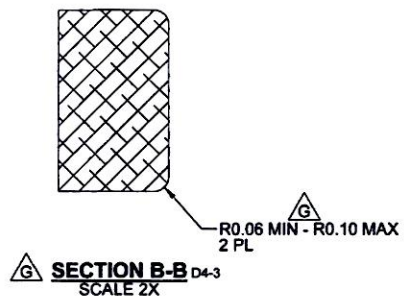
R0.06 MIN - R0.10 MAX
2 PL



D2230-1 MOUNTING LUG

DESIGN	BW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. G
MFG. APPR.		D2230	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		MOUNTING LUG	NTS
DATE	09.01.16	COPYRIGHT © 1994 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

RELEASED
09/06/25



D2230-3 MOUNTING LUG

RELEASED
09/06/25

DESIGN	BW	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. D2230	REV. G
MFG. APPR.		SHEET 3 OF 3	
APPROVED		TITLE	SCALE
DE APPR.		MOUNTING LUG	NTS
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20 Terry Fox Drive
Vankleek Hill, Ontario K0B 1R0 , Canada
Tel: (613) 678-3957
Fax: (613) 678-3956

Delivery Slip No.: 21979
Date: Aug 15, 2017
Page: 1

Sold to: Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7	Ship to: Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7
Order No.: 37004	Sold By: Walz, Christian D.
Shipped By: your truck	Ship Date: Aug 15, 2017

Description	Unit	Ordered quantity	Shipped quantity	Backorder quantity
D2230-3 Mounting Lug	Each	160	160	
The delivered goods must be inspected upon receipt to confirm compliance. Should there be discrepancies please notify METEC within 30 days of delivery. The goods are otherwise deemed accepted.				
Received by _____		Thank you for your order!		

AUG 17 2017
AUG 17 2017



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO37004**

Purchase Order Date 7/11/2017

PO Print Date 7/11/2017

Page Number 1 of 2

Order From :

VC-MET003

Ship To : DART AEROSPACE LTD

METEC METAL TECHNOLOGY INC.
20 TERRY FOX DRIVE PO BOX 781
VANKLEEK HILL, ON K0B 1R0
CA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

JUL 12 2017

Contact Name

Vendor Phone 613 678 3957

Buyer

Diane Baker

Customer POID

Customer Tax #

10127-2607

Terms

Net 10

Currency

CAD

FOB

Destination-Collect

Ship To Contact

Ship To Phone

Ship Via: Dart Truck

Ship Acct:

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D2230-3P AS PER DWG D2230 REV G B164011	Lug	7/26/2017 Yes 7/26/2017	FN	160.00 Each	\$13.80	\$2,208.00
Line Total:							\$2,208.00
2	71401-45 Procurement Quality Clauses A004 faa-pma/tso A005 right of entry A007 first article inspection (FAI documentation maintained by supplier) A016 personnel qualification A026 certification of materila conformance A040 notification of escape clauses A042 dart notification by supplier A043 retention of quality document	PROCUREMENT QUALITY CLAUSES	7/26/2017 No 7/26/2017		1.00	\$0.00	\$0.00

Note:

7/11/2017

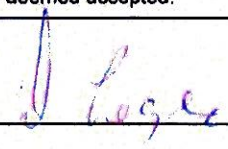
DAS
38
8-89



20 Terry Fox Drive
Vankleek Hill, Ontario K0B 1R0 , Canada
Tel: (613) 678-3957
Fax: (613) 678-3956

Delivery Slip No.: 21979
Date: Aug 15, 2017
Page: 1

Sold to: Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7	Ship to: Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7
Order No.: 37004	Sold By: Walz, Christian D.
Shipped By: your truck	Ship Date: Aug 15, 2017

Description	Unit	Ordered quantity	Shipped quantity	Backorder quantity
D2230-3 Mounting Lug	Each	160	160	
The delivered goods must be inspected upon receipt to confirm compliance. Should there be discrepancies please notify METEC within 30 days of delivery. The goods are otherwise deemed accepted.				
Received by <u></u>		Thank you for your order!		



20 Terry Fox Drive, Vankleek Hill, Ontario K0B 1R0

Tel. (613) 678-3957 & (613) 678-2782 Fax (613) 678-3956 metec@metec.ca

CERTIFICATE OF CONFORMITY

SOLD TO:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ont.
K6A 1K7

SHIPPED TO:

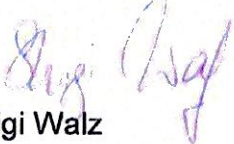
same

Quantity	Part Number	Part Name	Paint Batch #	P.O. Number
160	D2230-3	Mounting Lug	21182	37004

MATERIAL: supplied by DART B160522

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.


Shigi Walz

Vankleek Hill, August 16, 2017